DOCUMENT RESUME

ED 442 519 JC 000 449

AUTHOR	Bates, A. W.; Mingle, James R.
TITLE	The Role of the Indiana Commission for Higher Education in Promoting Effective Use of Information Technology Resources: A Report Prepared for the Indiana Commission for Higher Education.
INSTITUTION	Indiana State Commission for Higher Education, Indianapolis.
PUB DATE	1998-04-00
NOTE	20p.
PUB TYPE	Reports - Evaluative (142)
EDRS PRICE	MF01/PC01 Plus Postage.
DESCRIPTORS	Distance Education; *Educational Policy; *Educational Technology; *Higher Education; *Information Technology; Instructional Effectiveness; *Statewide Planning
IDENTIFIERS	*Indiana

ABSTRACT

This report presents the findings of two independent consultants' examinations of the Indiana Commission for Higher Education's role in guiding and promoting effective use of information technology. The report contains a summary of 10 recommendations and the April 1998 report submitted to the Commission. Two critical issues were examined: (1) academic policy of the Commission as it relates to statewide distance education; and (2) policy development for funding technology. Recommendations to the Commission are as follows: (1) clarify the scope and range of distance education responsibilities of institutions; (2) establish financial policies; (3) put in place a new multi-year needs assessment based on agreed-upon benchmarks and costs that will apply consistently across institutions; (4) re-allocate the equivalent cost of providing current users with satellite transmission time from IHETS budget to current users; (5) revitalize and restructure IHETS and the Partnership; (6) restructure the IHETS Board of Directors; (7) have institutions conduct cost-benefit analysis; (8) drop distance learning review of existing programs and limit reviews to new programs; (9) periodically review the capacity of institutions and the system as a whole to provide quality, cost-effective support services for distance learners; and (10) communicate to students, employers, and other "customers" of educational services of what they should expect from a quality provider of technology-based instruction. (VWC)

Reproductions supplied by EDRS are the best that can be made
from the original document.

ED 442 519

The Role of the Indiana Commission for Higher Education in Promoting Effective Use of Information Technology Resources

A Report prepared for the Indiana Commission for Higher Education

A. W. (Tony) Bates
James R. Mingle

April 1998

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☐ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY
C. R. Ingle
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

IC000449

A. W. (Tony) Bates, Director, Distance Education and Technology, Continuing Studies, University of British Columbia, 2329 West Mall, Vancouver, B.C. V6T 1Z4, Telephone: 604-822-1646, Fax: 604-822-0822, e-mail: tony.bates@ubc.ca

James R. Mingle, Executive Director, State Higher Education Executive Officers, 707 Seventeenth Street, Suite 2700, Denver, CO 80202-3427, Telephone 303-299-3685, Fax: 303-296-8332, e-mail: jmingle@sheeo.org

BEST COPY AVAILABLE

COMMISSION FOR HIGHER EDUCATION
Friday, May 8, 1998

DISCUSSION ITEM D: **Consultants' Report on Distance Education and Technology in Indiana**

Staff Recommendation For information only.

Background The Commission for Higher Education invited two consultants with considerable experience and expertise -- Dr. James Mingle, Executive Director, State Higher Education Executive Officers and Dr. A. W. (Tony) Bates, Director, Distance Education and Technology, University of British Columbia -- to assist the state of Indiana in the areas of technology and distance education. Drs. Mingle and Bates came to Indiana during the week of March 9-13, 1998, and discussed technology and distance education with representatives from each public institution, Independent Colleges of Indiana, and IHETS. The attached report is submitted to the Commission as a product of their visit to Indiana.

Supporting Document *Consultants' Report on Distance Education and Technology in Indiana*, April 29, 1998

The Role of the Indiana Commission for Higher Education in Promoting Effective Use of Information Technology Resources

April 1998

A. W. (Tony) Bates and James R. Mingle

EXECUTIVE SUMMARY

Our Charge from the Commissioner

At the request of the Commissioner for Higher Education, we were asked in February 1998 to examine the Commission's role in guiding and promoting the effective use of information technology in the State of Indiana. Specifically, we were asked to examine two critical issues: (1) academic policy of the Commission as it relates to statewide distance education; and (2) policy development for funding technology.

Recommendations

Recommendation 1: *That the Commission clarify the scope and range of distance education responsibilities of institutions and that these policies be a determining factor in strategic state investments and new program approval.*

Recommendation 2: *That the Commission establish financial policies through the base-budget formula to support agreed-upon receive site functions and costs.*

Recommendation 3: *The Commission put in place a new multi-year needs assessment based on agreed-upon benchmarks and costs that will apply consistently across institutions. This financial plan should consist of three elements: (1) equipment costs, (2) operating and support costs, and (3) statewide initiatives. Each institution should also be asked to prepare technology expenditure plans that link their expenditures directly to academic goals and programs.*

Recommendation 4: *That the equivalent cost of providing current users with satellite transmission time be re-allocated from the central IHETS budget to the current users, who can then decide whether or not to buy these or other services from IHETS on a fee- for-service basis. At the same time, the Commission will continue to meet the costs of IHETS administrative and technical staff from central funds.*

Recommendation 5: *Revitalization and restructuring of IHETS and the Partnership is Indiana's best hope for competing with other states and for strengthening the quality of services provided to Indiana residents. This will be especially crucial for smaller institutions and regional campuses. Indiana also is in a unique position to develop a strong collaborative between the public and private sectors.*

Recommendation 6: *That the IHETS Board of Directors be restructured to include a more balanced representation of members with a statewide perspective.*

Recommendation 7: *Institutions, in seeking new program funds and/or program approval of distributed learning initiatives, should conduct cost-benefit analysis in a format agreed upon and approved by the Commission.*

Recommendation 8: *That, after a reasonable period to test the efficacy of the existing policy, the Commission consider dropping its distance learning review of existing programs and limit reviews to new programs (whatever the proposed mode of delivery). These should be reviewed with the assumption that once approval is granted, the program has the potential to be offered anywhere in the state. Questions of institutional mission, quality, duplication and potential electronic delivery should be addressed at this time.*

Recommendation 9: *That the Commission, in cooperation with institutions, periodically review the capacity of institutions and the system as a whole to provide quality, cost-effective support services for distance learners.*

Recommendation 10: *That the Commission, in cooperation with ICPAC and institutions, communicate with students, employers and other "customers" of educational services what they should expect from a quality provider of technology-based instruction.*

Conclusion

These recommendations are made in the context of an overall positive impression of the developments in this state. The institutions in Indiana, both public and private, have taken important steps in infusing technology into their teaching, research, and service missions. The legislature and governor have provided substantial supplementary resources to base budgets in Indiana to keep institutions up to date in this rapidly changing environment. The Commission has provided important leadership on developing statewide infrastructure, streamlining regulatory policies and supporting structures and mechanisms for cooperation and cost sharing. Access to higher education programs is in the process of being significantly expanded through new distance learning initiatives. The challenges of the future will be to sustain public support for this important priority, to assure that all institutions and residents have access to technology resources, and to develop collaborative, rather than regulatory, mechanisms to insure cost-effectiveness.

The Role of the Indiana Commission for Higher Education in Promoting Effective Use of Information Technology Resources

April 1998

A. W. (Tony) Bates and James R. Mingle

Our Charge from the Commissioner

At the request of the Commissioner for Higher Education, Stan Jones, we were asked in February 1998 to examine the Commission's role in guiding and promoting the effective use of information technology in the State of Indiana. Specifically, we were asked to examine two critical issues: (1) academic policy of the Commission as it relates to statewide distance education; and (2) policy development for funding technology.

In examining these issues, we have made an effort to place the specific statutory responsibilities of the Commission (such as approval of programs and development of budget recommendations) in a broader policy framework. We have also tried to provide the Commission with a general assessment, albeit limited by our brief visit to Indiana, of how effectively and extensively campuses are incorporating information technology in their institutional missions.

Process

We visited the Indiana Commission for Higher Education in December 1997 for a briefing and discussion of the mandate. A proposal for consulting was drafted and agreed upon. At that time, the task was divided between assessment of the policy issues outlined above and statewide infrastructure issues related to Intelenet. (Mr. Alan Blatecky of the University of North Carolina was employed by the Commission to advise the staff on these issues.) In March 1998, we visited Indiana and conducted a set of interviews with individuals representing the following organizations and institutions:

- Indiana State University
- Ivy Tech – Terre Haute
- Indiana University Purdue University Indianapolis (IUPUI)
- University of Southern Indiana
- Vincennes University
- Indiana University, Bloomington
- Purdue University
- Ball State University
- Ivy Tech State College (Central Administration)
- Independent Colleges of Indiana
- Indiana Higher Education Telecommunications System (IHETS)
- Staff and Board Members of the Indiana Commission for Higher Education

Most of the interviews took place in person and at campus locations through the state. Two sessions (University of Southern Indiana and Vincennes) were conducted using two-way video from the IHETS office in Indianapolis. Many of the interviews involved chief executive officers and other administrative staff with responsibilities in the area of information technology, including faculty development. Faculty and students were not interviewed. Following the March visit, the consultants conducted selected follow-up interviews on the telephone and conducted secondary research on relevant activities in other states. The report was completed and submitted in April 1998.

The Capacity of Indiana Institutions to Utilize Information Technology and Distributed Learning Delivery

In order to place in context the issues we were investigating, we asked staff at each of the institutions we visited to give us a brief description of their current position with regard to the use of instructional technologies, both for on campus and distance teaching.

We were favorably impressed with the initiatives being undertaken in Indiana. There is a sense of excitement and commitment about the potential for reaching new audiences and for transforming the teaching-learning process. We were especially impressed with the rapid growth of complete degree programs via distance learning, even if we suspect that some of these may not be sustainable. We also were pleased to see some institutions address important statewide needs such as degree completion programs on two-year campuses. While the predominant mode of delivery remains one-way video/two-way audio, we found enough examples of new initiatives involving other technologies, including internet delivery, to be encouraged. We also found institutions that were thinking strategically as to where best to put their energies and resources, given the new competitive environment.

It may be telling to note that most of our interviews (and our charge from the Commission) were focused on "distance learning" in the classic sense of this term. Increasingly, "distant" learners are residing in close proximity to their home campus. These students take a mix of both synchronous and asynchronous learning in efforts to gain flexibility to include courses in their busy lives. This is especially true for working adults in metropolitan areas. For this reason we prefer the term "distributed learning" because it lessens the separation between what is needed and necessary for the remote student versus what is provided the traditional on-campus student.

Given the way that our interviews and charge were structured, as well as our limited time in Indiana, we feel handicapped in providing more than a general impression of the quality and scope of technology-based instruction and related support services for the on-campus student. We know of institutions taking important steps to restructure their back-office services through technology (for example, registration, bursar functions), and of institutions launching initiatives to train all faculty in the use of technology. We urge the Commission to broaden its perspective on the nature of the technology issue in Indiana to include the "on-campus" dynamic.

Here, then, are some general findings from our campus visits:

1. Every institution believes that its use of instructional technologies will increase rather than decrease for the foreseeable future.

2. Each institution recognizes that the new technologies will increase competition for students.

3. Many, but not all, of the institutions we visited are developing detailed technology plans to assist in the management and application of new technologies for instruction.

4. Some of the institutions in Indiana have considerable expertise and experience in using new instructional technologies and in distance education.

5. In most cases, institutions are operating on an institutional and individual basis, rather than as part of any overall system approach, although there are some significant areas in which collaboration and co-operation are evident.

6. There is a general level of satisfaction with the development and roll-out of state educational technology delivery systems. Staff at nearly all the institutions visited thought IHETS is providing a good quality service, both in satellite and terrestrial networking.

7. The integration and collaboration with regard to the development of state technology networks is in marked contrast to the low level of integration and collaboration in academic program planning and delivery beyond the campus.

8. There is considerable overlap of institutional mission, especially in geographical areas and associate degree programs.

9. Some new initiatives may not be cost-effective given the economies of scale that operate in distance learning. Distance learning programs utilizing satellite technology and significant up-front development costs need large enrollments to justify these additional costs.

10. There are considerable disparities between institutions in their technological infrastructure and funding for technology-based instruction.

11. There are no consistent policies or practices across institutions with regard to ancillary student fees to support technology enhancement.

12. We suspect that Indiana institutions, like many around the country, are underestimating the cost and value of services provided at the local receive site.

The Role of the Indiana Commission on Technology-related Issues

Technology has clearly presented major challenges to the assumptions under which both colleges and universities, as well as state coordinating boards, have operated historically. With ever shortening "technology cycles," state and institutional planning processes – whether for technology acquisition or programming – have needed their own streamlining

to keep up. Old conceptions of "geographic services areas" also are challenged in this new networked environment. As the desire to create a more "market responsive" system grows, so too does the value of a deregulated approach to program development and oversight.

But there should be no illusions about the "magic of the marketplace" in providing quality and cost-effective services and programs in higher education. Some populations and some occupations will be neglected in this market-driven environment. Cost and quality imperatives should drive institutions together into partnerships and collaboratives but they may be slow to realize this self-interest. "Risk taking" and entrepreneurship are likely to grow, but so too will the need to inform and protect consumers from fraud and abuse.

These dynamics suggest significant new and important roles for statewide coordinating boards. Among the new roles being assumed by progressive coordinating boards are the following:

- Deregulator and streamliner of planning and oversight processes
- Stimulator of "best practice" and "choice"
- Enabler, funder and broker of partnerships
- Creator of "utilities"
- Informer and protector of consumers
- Strategic investor on behalf of the state and its underserved "customers"

The State of Indiana is fortunate to have a coordinating structure that is well positioned to assume this new role. In fact, actions already taken by the Commission to streamline the approval process for distance learning programs and to serve as an advocate for technology-based instruction and networks are indications that this body is ready and willing to take on these new roles. With the Commissioner for Higher Education playing a key role in important statewide initiatives (Access Indiana and Intelenet), higher education is well-represented on these developments.

The Commission's role must be dual in nature. On the one hand, its academic and financing policies must empower all institutions to utilize IT; on the other hand, it must articulate and operationalize a *collective vision.* It must also advocate for important statewide goals and mechanisms to achieve those goals. In our view, information technology and network developments are most relevant to the following statewide priorities:

- The delivery of cost-effective instruction to underserved populations and regions
- The enhancement of the capacity of all institutions and programs to utilize the power of technology to carry out their teaching, research, and service functions.
- A more fully articulated system of higher education where transitions from one institution and sector to another are enhanced
- An enhanced capacity of higher education institutions in Indiana to meet the economic development goals of the state and the continuing life-long learning needs of its residents
- A more informed set of consumers about choices and programs available from Indiana institutions and a better conception of what constitutes "best practice" in the field of distributed learning

- A financing, planning, and accountability process that can be used to justify the significant investments of public funds required to achieve these goals.

Regulation, Competition or Collaboration?

Throughout the nation and in other countries as well, policymakers and institutional leaders are debating the efficacy of moving toward a more competitive and less regulatory model for decision making in higher education. As we noted earlier, one of the consequences of the spread of distance education is that it calls into question the mission of different campuses, especially those with a regional or geographical remit. New technologies allow any campus to deliver anywhere with Indiana, and indeed anywhere in the world. Too often this debate has been over the polar extremes of free market vs. "heavy-handed" regulation. We believe there is a third alternative, one that makes both political and economic good sense – namely, collaboration. In fact, the economic imperative of the future for many Indiana institutions may be this: *collaborate or perish!*

In a collaborative model, different campuses share common resources as far as possible (such as networks, distance education expertise and learning centers), agree among themselves to avoid duplication and to work together wherever possible on joint course development and delivery. Students would be able to take courses from different campuses and transfer credit as appropriate.

This has been, in large part, the historic role of the Indiana Higher Education Telecommunication Systems (IHETS) and, more recently, the Indiana Partnership for Higher Education, which is a part of IHETS. However, the apparent transparency of easy-to-use technologies such as video conferencing and the World Wide Web, and the development of alternative distribution networks such as Intelenet, have worked to undermine a system-wide collaborative effort. It becomes easier and easier for individual faculty members and programs to gain at least an entry foothold in a global learning market. It is far more questionable, however, whether these individual initiatives can sustain themselves over the long term or whether the resulting proliferation will garner much political support in the legislature.

Rebuilding and strengthening a collaborative approach between institutions has the advantage of avoiding duplication and accessing a higher level of infrastructure and resource than would otherwise be possible. More importantly, it would enable Indiana institutions to learn and grow from the experience of working together and to leverage important qualitative improvements and economies of scale.

For a collaborative system to work, there needs to be a major shift in the culture of the institutions in the state. Collaboration requires a major change of attitude from a large number of existing staff. Leadership can help, particularly from the Commission, the respective boards of trustees and the presidents. Also required is a structure to encourage collaboration as well as the appropriate financial incentives.

Role and Mission Issues

One of the most important functions of statewide coordinating boards has been to either establish or negotiate an effective division of labor, at the broadest mission level, among institutions and sectors. States such as California, North Carolina, Georgia, and Illinois all have relatively distinctive missions for different sectors. This approach tends to maximize public support, minimize institutional conflict, and focus individual institutions on distinctive niches (increasingly a market imperative).

But role and mission designations tend to be static. Circumstances change, populations shift, institutional capacity and expertise grow and decline. The ideal, we believe, is a role and mission framework that provides for institutional clarity and efficiency, but is dynamic enough to adjust to changing circumstances and creative new solutions (for example, the delivery of baccalaureate programs on two-year campuses).
We understand that the Commission is currently undertaking a review of institutional missions. Sorting out the "duplication" issues through voluntary coordination and collaboration would be far easier with more clarity in Indiana. We found, for example, the overlapping missions of Ivy Tech, the regional campuses of IU, and of Vincennes particularly problematic.

With regard to distributed learning, it is critical for institutional missions to be defined in terms of whether an institution's student focus is primarily local, statewide, or national/ international. While it is certainly possible for any given faculty member or institution to launch an internet-based course "to the world," we hardly find it compelling that all should do so with state endorsement and support. This is especially true when it comes to development of complete degree programs.

Local institutions would not be expected to develop a comprehensive range of distance education programming, although they may contribute in terms of specific niches within the system where they have a unique area of subject expertise. However, they may well act as a one-stop counseling and advisory service on programming, courses and career advice for the local community, and may bring in or direct students to programs from other state and out-of-state providers, so as to supplement their own basic or core face-to-face programming. A relatively greater proportion of staff at these institutions then would be support staff, tutors for other institution's courses, and advisers.

Statewide institutions or projects would make available programming in selected areas on a statewide basis, and would avoid duplication by participating with other statewide institutions in program planning. Statewide institutions may also participate in regional or inter-state collaborative projects, where development costs are shared between a number of different organizations. These statewide institutions may also have one or two areas of national or international focus, where they have unique or internationally recognized program staff.

There would be no more than one or two national/international institutions within the state where student focus in many areas would be global. These would be institutions with outstanding areas of research and subject expertise and the strength and resources to compete on a global basis. They may also have a limited role in statewide delivery of programming in areas such as medicine, where no other state institution has the capacity

or mandate. For this reason these institutions should also be encouraged to participate in statewide planning and collaboration of distance education programming.

As a result, we recommend:

> ***Recommendation 1****: That the Commission clarify the scope and range of distance education responsibilities of institutions and that these policies be a determining factor in strategic state investments and new program approval.*

The Commission should do its utmost to ensure that institutional plans regarding delivery of programs beyond their campuses are consistent with mission statements, and that mission statements are realistic in terms of existing resources and the need for diversity within the system.

It will not be enough, however, for the Commission and institutional leaders to declare a mission for technology-based delivery without the concomitant financial incentives to stay focused on a particular role. We find this especially problematic for local or regional institutions that justifiably resist playing a "receive site" role when most, if not all, of the financial incentives flow to the credit granter and the content deliverer. We found, for example, that institutions launching statewide distance education programs were underestimating the need for and value of local receive site support. We believe that local receive sites (such as two-year institutions, regional campuses, off-campus sites) play an important role in providing not only technical support and facilities but potentially a wide range of other functions, including counseling, advising, library support, mentoring, tutoring, and even marketing and local needs assessment. While the partnership has established some minimal policies concerning revenue sharing for tuition, we believe additional revenue sharing from the state funding formula will be needed to sustain a quality distributed learning system.

Therefore we conclude:

> ***Recommendation 2:*** *That the Commission establish financial policies through the base-budget formula to support agreed-upon receive site functions and costs.*

Such a policy could be established in a variety of ways, including a per-student basis or a flat amount based on a minimal volume of activity at the receive site. Not only will such a policy encourage institutions to stay within agreed-upon roles and missions, but are likely a boon for collaboration across the state. The state may also wish to extend this receive site funding to other entities including the K-12 sector, private colleges and universities, under-served communities and employment sites. In return for operational support, receive sites, or learning centers at employer, community or school sites would provide facilities support. (Such a policy was recently adopted by the Oklahoma State Regents.)

Financing and Budgeting

The Commission has played an important role in developing public support for meeting technology needs. It has supported discretionary spending for information technology based on requests developed by the institutions. In 1997, institutions received a nonrecurring supplement to their base on the order of 1% and are scheduled to receive, pending Commission review, an additional 2% nonrecurring supplement in 1998. At its

March 1998 meeting, the Commission received requests from institutions to make this 2% supplement a permanent part of institutional-based funding.

We believe there is an important planning and funding issue that needs to be addressed, namely, the necessary level of funding for technology for the Indiana system as a whole. We believe the system needs to move beyond funding a wish list of equipment purchases and network leasing to identifying the minimum needs of institutions for technology support to achieve their academic goals. Thus we conclude:

> ***Recommendation 3:*** *The Commission should put in place a new multi-year needs assessment based on agreed-upon benchmarks and costs that will apply consistently across institutions. This financial plan should consist of three elements: (1) equipment costs,(2) operating and support costs, and (3) statewide initiatives. Each institution should also be asked to prepare technology expenditure plans that link their expenditures directly to academic goals and programs.*

We recommend that the Commission seek a longer term and more well-documented legislative request organized around the following general categories: (1) equipment needs (including labs, desktop equipment, and networks); (2) operating needs (including training and support, software, and line costs); and (3) statewide and special initiatives (including support for IHETS and the Partnership, Internet2 initiatives, and Western Governors University).

Underlying our concern is the distorting effect of once-only funding of technology. This results in the use of funds for non-recurring expenditures such as computers or leased lines. However, computers and networks need technical support; computers need to be replaced or upgraded on a regular and increasingly shorter time basis; academic support staff are needed to develop computer-based materials; and above all, academic time must be found to create learning materials. All this has direct impact on operating budgets. Furthermore, it makes no sense to fund hardware and networks without relating it to academic goals and plans. These plans should include the costs of faculty development and training, and technical and instructional support requirements, as well as hardware, software, and network costs. As noted earlier, we believe significant resources also must be devoted to collaborative initiatives funded through IHETS. Other statewide initiatives, including Western Governors and possibly Internet2 activities of IU and Purdue, should also be considered.

The steps in establishing a biennial budget request should include the following:

- Establish a process for determining equipment and operating needs in consultation with institutional CIOs. This should include agreements on a standard cost for micro-computers, local area networks, wide area networks, client serve administrative systems, support and maintenance costs, etc. These benchmarks can then be applied against agreed-upon FTE staff and student calculations. Benchmarks based on current expenditure patterns as well as those used in other states can be used as a starting point for negotiations (for example, the guidelines developed by the State Council of Higher Education for Virginia).

- Establish an agreed-upon life-cycle replacement cost for different categories of expenditures so that annual costs can be calculated.

- Deduct current institutional expenditures from base budgets from the above total calculation of needs.

- Deduct expected contributions from student tuition and/or technology fees.

The above calculation will yield a total institution and systemwide need request over an agreed-upon time period (such as one or two biennia.). It assumes that all institutions need and deserve a basic level of equipment and support for IT. It also establishes a mutual level of expectation based on current expenditures and an expected contribution from student tuition and fees. The Commission should give guidance to institutions when developing these plans as to the likely level of funding (for example, 100% of projected annual need after calculating institutional and student contributions down to lesser percentages).

Charging for Satellite TV and Intelenet: We noted an inconsistency in the system of charging institutions for technological service. The network costs of satellite TV are paid by IHETS on behalf of the system as a whole, and are not charged back to users. On the other hand, terrestrial digital network services offered through Access Indiana – or purchased independently, by Indiana University – are a direct cost to the institution, and reflect the magnitude of use.

We understand the historical reasons for this anomaly, and also the substantial investment one or two institutions have made in the terrestrial support services required to support satellite TV delivery. Nevertheless, the current system provides no incentives to those institutions making use of satellite TV to assess the relative cost benefits of alternative methods of delivery.

IHETS is managing the transition from satellite to terrestrial transmission by means of a planned reduction of channels over the next few years. This goes some way in recognizing the impact of changing technology, but in the long run, citizens of the state may still be subsidizing a service that could be provided at less cost and more effectively in other ways.

Therefore we conclude:

> ***Recommendation 4:*** *That the equivalent cost of providing current users with satellite transmission time be re-allocated from the central IHETS budget to the current users, who can then decide whether or not to buy these or other services from IHETS on a fee- for-service basis. At the same time, the Commission will continue to meet the costs of IHETS administrative and technical staff from central funds.*

IHETS and The Indiana Partnership

If the Commission concludes, as we have, that the collaborative model is the best way to both strengthen quality and prevent duplicative effort, it needs to strengthen current collaborative structures. In 1992 , the Board of Directors of IHETS created the Partnership for Statewide Education with the purpose of enabling institutions to "better serve the needs of Hoosier residents, business, and industries by providing multiple distance alternatives for higher education." This was to be accomplished through the sharing of institutional resources, programs, and instruction. Since that time, the

"Partnership," as it has come to be known, has supported a number of activities that have positively affected the quality and scope of distance learning in the state. For example, in recent years the Partnership has produced print and electronic recruitment tools, including a schedule of classes, and has supported a student services call center for distance learners through ICPAC. The Partnership also has made small grants to faculty for course development and supported web resources and online data bases that can be shared by all institutions.

Despite these activities, the level of institutional commitment and leadership within the Partnership appears to be flagging. Board support for new program initiatives has been problematic, and in some cases institutions are no longer sending their most knowledgeable and committed staff to participate in Partnership activities. This may be due to the current climate of "competitiveness" among Indiana institutions for distance learning students as well as a perceived lack of relevance of Partnership activities to on-campus priorities for IT.

Ironically, as Indiana apparently is backing away from collective activities in distributed learning, other states are creating new and aggressive organizations that are supporting decentralized content providers. A few examples:

- Through a memorandum of understanding, the Board of Regents and the State Community College System in Florida created the Florida Public Postsecondary Learning Institute whose purpose is to coordinate the development and delivery of distance learning instruction. This body represents both the four-year university sector as well as a decentralized group of community colleges.

- In the fall of 1998, the University of Wisconsin System created a Learning Innovation Center and a related not-for-profit corporation entitled LearningWorks Group, Inc. to be the state's focal point for the creation, distribution and evaluation of digital learning products. It also will be supporting both faculty and students in using these instructional products. The Center will receive modest support from the System and the state, but is expected to generate revenue from institutional clients through market research, faculty training, and courseware production. LearningWorks Group, Inc., on the other hand, will provide a mechanism for raising capital resources outside of state hiring and procurement procedures that can then be gifted or loaned to the Learning Innovation Center. Other institutions and state systems also have created nonprofit organizations in order to shorten the response time to corporate partners and clients.

- In 1997, the Kentucky legislature reconstituted the Council on Postsecondary Education and created the Commonwealth Virtual University (CVU) as an arm of the Council. While CVU plans are still being formulated, it will not become an independent degree-granting entity but a service utility for various educational providers in the state. (Other states, including California and Minnesota, have also launched "virtual university" initiatives that are non-degree granting utilities in support of multiple content providers and credit granters.)

  ***Recommendation 5**: Revitalization and restructuring of IHETS and the Partnership is Indiana's best hope for competing with other states and for strengthening the quality of services provided to Indiana residents. This will be*

especially crucial for smaller institutions and regional campuses. Indiana also is in a unique position to develop a strong collaborative between the public and private sectors.

A restructured IHETS and Partnership should be established on the following principles: (1) a board representing both statewide and institutional interests; (2) an organizational structure eligible to receive and administer state grants as well as seek revenue from other sources (for example, federal government, foundations, institutional cost-sharing, and private sources); and (3) voluntary participation.

Role and Mission: IHETS staff and the Partnership working group have already taken steps to plan for the future and we endorse these efforts. (See *IHETS/IPSE Strategic Plan*, May 1996, and subsequent "Future Directions" memo.) Among the top priorities for the Partnership in the future should be the following:

- Voluntary coordination of program and course development in distance learning aimed at minimizing duplication
- Targeted collaborative program development through an RFP process aimed at important statewide priorities
- Joint negotiations with vendors of hardware, software, and "outsourced" services on behalf of groups of institutions
- A mission to support faculty training and development for both on-campus and off-campus applications of information technology
- Joint marketing of "Indiana" distance learning
- Clearinghouse functions and evaluation of electronic resources
- Development of common admissions, web-registration tools for interested institutions
- Consumer information as to what constitutes "best practice" in the area of distance education (most likely in cooperation with ICPAC).

Organization, Staffing and Financing: We believe that the Partnership should be a part of a restructured IHETS (see below) and should be staffed by IHETS staff. The committee structure and activities of IHETS and the partnership appear cumbersome, however, and need to be streamlined. We also encourage the new board to consider a full-time executive director of the Partnership who reports to the IHETS director. This appointment could be filled on a term or rotating basis from member institutions.

We also recommend significant new state funding for the Partnership and aggressive grant writing on the part of the IHETS staff and new Partnership director. The Partnership also should consider launching fee-for-service activities for interested parties (for example, faculty and school teacher training and development). State grants should be awarded in a matching form in order to solicit institutional involvement and commitment. Given the size of the state's investment in equipment and infrastructure, we believe an investment on the program and collaborative side of $2-$5 million would be appropriate.

Restructuring the Board: IHETS is a creation of the legislature which authorized the Boards of Trustees of the seven public institutions (and a representative from the private institutions in Indiana) to appoint their respective presidents to guide this statewide utility. Since its creation, the IHETS Board (which has no formal bylaws or legal standing) has asked the Governor to appoint one board member (currently vacant) and extended an

invitation to the State Superintendent. Notably, there is no presence on the IHETS Board of the Indiana Commission for Higher Education.

> ***Recommendation 6:*** *That the IHETS Board of Directors be restructured to include a more balanced representation of members with a statewide perspective.*

Structural changes are always controversial and there is usually more than one way to structure an organization and board to accomplish its purposes. We believe, however, that the current structure is not supportive of an expanded mission for IHETS and the Partnership. We suggest, for example, that a Board of Directors of IHETS be appointed by the Governor or the Indiana Commission with the following composition:

- four public sector presidents (terms limited and staggered)
- the State Superintendent of Public Instruction (or his designee)
- the Commissioner for Higher Education
- a private college representative
- three appointments drawn from major employers or other "public" lay representatives (terms limited and staggered)

In addition, we encourage this new board to consider creating alternative structures, such as not-for-profit entities created to carry out appropriate activities of IHETS and the Partnership.

Cost-effectiveness Issues

The Commission will need to keep a careful watch on the cost-effectiveness of major statewide distance education initiatives, in particular those requiring special or additional funding.

Technology-based distributed learning has a different set of cost structures from face-to-face teaching. Indeed, there is a variety of different instructional technologies, each with a different cost structure. Satellite TV requires a relatively large number of students per class before it becomes cost-effective, but it can add extra students beyond a "break-even" point at relatively low marginal cost.

A good example of these economies of scale can be found in the "Teletechnet" programs of Old Dominion University, a program that uses satellite to deliver baccalaureate degree programs on community college campuses. The program enrolls over 4000 students in 20 separate degree programs. In a recent cost analysis of this operation by an independent study funded by U.S. Department of Education, researcher Frank Jewett found that costs in high demand courses in the Teletechnet network (200 students per course statewide) compared favorably with on-campus courses with section sizes of 50. In medium demand courses of 100 students statewide, costs were comparable to on-campus courses with section sizes of 25 or less. For low demand courses of 50 students statewide, Teletechnet costs exceeded on-campus classroom costs. (The complete Teletechnet case and others can be found at **Error! Bookmark not defined.**.)

Web-based courses tend to have a lower start-up cost than satellite TV, but if some of the key features of web courses are to be maintained, such as interaction between learners and between learners and tutors, costs tend to increase with student numbers more steeply than satellite TV.

Thus we conclude:

> **Recommendation 7**: *Institutions, in seeking new program funds and/or program approval of distributed learning initiatives, should conduct cost-benefit analysis in a format agreed upon and approved by the Commission.*

This analysis should distinguish between fixed costs (for example, those costs independent of student numbers) and variable costs (those costs that are linked to the number of students). A key measure of cost-effectiveness is the average cost per student per course. Preferably some form of comparison should be provided, either with the cost of face-to-face delivery, or with alternative technology approaches.

We have prepared a technical appendix to this report, setting out means of evaluating the costs, benefits and implementation process for distance education and distributed learning projects, which will be presented at a workshop on May 7, 1998 in Terre Haute. Following feedback from this workshop, the technical appendix will be revised and made available to Commission staff as a working document.

The Commission's Policy for Approval of Distance Education Programs

We believe that the Commission has taken important and positive steps toward streamlining the approval of distance education programs by adopting a new policy during the March 1998 meeting. Most institutions agree with the direction that the state is taking, although we heard two important reservations on opposite ends of the spectrum. Staff at one institution worried that the more open environment for distance learning approval would mean even further institutional conflicts over mission and territory. Another institution believed that, given the history of delay in approving programs at the Commission, it would be put at a competitive disadvantage with the open policy.

One provision of the recently adopted policy calls upon the Commission to receive early notification of intent to develop distance learning programs and then to convene the institutions to consider how to coordinate their plans. If the state adopts the recommendations discussed later in this report regarding IHETS and the Indiana Partnership, we recommend that this responsibility for coordination be delegated, with Commission staff participation, to the Partnership.

Future changes: If the Commission adopts further deregulation, it would likely mean no distinctive process of approval based on mode of delivery. Our understanding is that the Commission felt the need to develop new policies for distance education for the following reasons two reasons: (1) the need for information about developments in distance education; (2) the need to ensure quality control and consumer protection for distance education programs.

As for the issue of duplication, the Commission appears to have removed that criteria from consideration by a blanket assertion that "program duplication will not be a factor that the Commission will consider in authorizing degree programs delivered through distance learning technology."

While we recognize the difference between approval for programs and individual courses, technology developments will make it increasingly difficult to identify a program as a "distance" program. Indeed, it is likely that programs originally approved as traditional campus-based programs will gradually mutate into programs that are available both on campus and at a distance. Furthermore, we believe the Commission should encourage institutions to review constantly their mode of delivery to meet changing technological and market opportunities.

We believe that a more viable policy than requiring approval when an institution changes the predominant delivery mode of a program will be to consider that any new program approved, whatever its original mode of delivery, will have the potential to be offered anywhere within or beyond the state. This would be a more realistic basis for controlling duplication within the system. Thus we recommend:

> ***Recommendation 8****: That, after a reasonable period to test the efficacy of the existing policy, the Commission consider dropping its distance learning review of existing programs and limit reviews to new programs (whatever the proposed mode of delivery). These should be reviewed with the assumption that once approval is granted, the program has the potential to be offered anywhere in the state. Questions of institutional mission, quality, duplication and potential electronic delivery should be addressed at this time.*

Student and Academic Support Services: Given the substantial and laudatory growth of distance learning programs in Indiana, we are concerned about some institutions' capacity to provide the requisite student and academic support services for distance learners. Rather than focusing on reviewing particular academic programs that are being extended off-campus, we recommend the following:

> ***Recommendation 9****: That the Commission, in cooperation with institutions, periodically conduct "best practice" reviews to assess the capacity of institutions and the system as a whole to provide quality, cost-effective support services for distance learners.*

This should include the way in which library materials, both printed and electronic, are provided; the effectiveness of counseling, advising, and tutoring; and back-office operations such as admissions, registration, and bursar. Such reviews should include mechanisms for gathering student and employer feedback and examine opportunities for resource sharing. It should also examine national and international standards for best practice in provide support in a distributed learning environment.

Consumer Information: A deregulated environment requires more vigilance and knowledge upon the part of individual consumers of educational services to assure institutional account-ability. Indiana residents already have access to a wide variety of in-state, out-of-state, and international providers. This will grow substantially in the years ahead, especially through such initiatives as the Western Governors University. Students and employers will need more and better information on technology-based services and programs available both at a distance and on campus. We congratulate the Commission in promoting the standards of good practice developed by the North Central Association and the Western Interstate Commission on Higher Education (WICHE). Now we suggest an additional step:

***Recommendation 19**: That the Commission, in cooperation with ICPAC and institutions, communicate with students, employers and other "customers" of educational services what they should expect from a quality provider of technology-based instruction.*

This could include printed and electronic materials available through ICPAC as well as institutionally developed materials. Some states, such as Colorado, have reformatted legislatively mandated "report cards" to make them more user-friendly to parents and students. Benchmarks on technology issues – such as computer lab access, internet availability, and services provided distance learners – would be a good addition to these documents. Another approach that can be taken by campus leaders is to list the technology component of each course in catalogs and registration materials.

Conclusion

This report suggests a number of ways that we believe the Indiana Commission might strengthen the application of information technology resources in support of institutional missions and important statewide goals. These recommendations are made in the context of an overall positive impression of the developments in this state. The institutions in Indiana, both public and private, have taken important steps in infusing technology into their teaching, research, and service missions. The legislature and governor have provided substantial supplementary resources to base budgets in Indiana to keep institutions up to date in this rapidly changing environment. The Commission has provided important leadership on developing statewide infrastructure, streamlining regulatory policies and supporting structures and mechanisms for cooperation and cost sharing. Access to higher education programs is in the process of being significantly expanded through new distance learning initiatives. The challenges of the future will be to sustain public support for this important priority, to assure that all institutions and residents have access to technology resources, and to develop collaborative, rather than regulatory, mechanisms to insure cost-effectiveness.

In closing, we wish to extend our thanks to the Commission staff and to the institutional representatives we met with during our campus visits. We have learned much from our experience and hope that we have offered some constructive advice on this important subject.

BEST COPY AVAILABLE